Success does not imply knowledge: Preschoolers believe that accurate predictions imply knowledge, but accurate observations do not

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**Introduction**
To effectively learn from others, we must decide who is knowledgeable. Past research suggests that children can solve this problem based on the accuracy of informants’ prior testimony (e.g., Pasquini et al., 2007). However, agents can be knowledgeable but incompetent, or ignorant but accurate. How does our understanding of the link between accuracy and knowledge develop?

**Procedure**
One of our friends peeked under all the cups, but we don’t know who!

Who should we ask first? Which cup should we ask about first?

Which cup should we ask about next? (Procedure repeats 1x)

**Study 1:** Do children distinguish between accuracy and knowledge?

Test questions:
1. Who peeked? 2. Who knows what’s under the last remaining cup?

**Study 2:** Do children recognize boundaries of knowledge and ignorance?

Procedure difference: before test questions, the animal in last cup is switched. Same test questions as Study 1

**Study 3:** Do children spontaneously infer knowledge when endorsing testimony?

Procedure difference: Test question: What animal is under the cup?

**Results**
Participants: 95 4- to 5-year-olds (M = 5.0, Range = 4.0 – 6.0)

**Results, Studies 1 – 3**

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<th>Percent choosing the predictor</th>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 3</th>
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Test Question
- Who Knows?
- Who peeked?
- Whose testimony?

**General Discussion & Conclusion**

Across three experiments, 4- and 5-year-olds distinguished between knowledge and accuracy. Specifically, while accurate predictions were taken to imply knowledge, accurate observations were not.

**Future Directions:**
- In the first three studies, we saw that children understand that accuracy does not always imply knowledge.
- However, it is also true that inaccuracy does not always imply ignorance. If an agent is wrong (in the right kind of way), will children infer that this agent is actually knowledgeable?

**Study 4:** Do children recognize that ignorance is not always associated with inaccuracy?

One of our friends peeked under all the cups, but we don’t know who!

Test questions:
1. Who peeked?
2. Who knows?

References & Related Work:
- Pasquini, Corriveau, Koenig & Harris (2007). Dev. Psychology.